

DEAD BIRD COMPOSTER SIZING WORKSHEET

Conservation District: _____ Field Office: _____

Cooperator: _____ Location: _____

B = No. of birds on farm = _____

M = Anticipated mortality for flock, as decimal (*NOTE: Mortality may range from 3-5% for broilers, up to 18% for breeders. Use actual data or use Poultry Waste Data Table 1 – GA-ENG-313T1.*)

W_S = Weight of birds near maturity, lbs. (ex.: 4.2 lbs for broilers)

T = Life of flock, days (ex.: 42 days for broilers).

W_T = Weight of daily loss

F = Volume factor (1.5 – 2.5)

NOTE: Volume factor is based on local conditions, experiences, and management skills of operator.

$$\begin{array}{ccccccc} \mathbf{B} & \times & \mathbf{M} & \times & \mathbf{W}_s & / & \mathbf{T} & = & \mathbf{W}_T \\ \hline & \times & & \times & & / & & = & \text{lbs/day} \end{array}$$

PRIMARY BINS:

$$\begin{array}{l} \text{Volume} = \mathbf{V}_1 = \mathbf{F} \times \mathbf{W}_T \\ = \mathbf{V}_1 = \quad \times \quad = \quad \text{ft}^3 \end{array}$$

Determine type of composter (Check one):

(A) Standard Bins – Removable wall at entrance _____

(B) Deep Bins – Open at entrance _____

A. Dimensions of Standard Bins:

h = height of bin (4 to 5 ft.) = _____ ft.

Y₁ = depth of bin (6 or 10 ft.) = _____ ft.

Y₂ = width (front) of bin (10 ft.) = _____ ft.

V_B = individual bin volume = **h** x **Y₁** x **Y₂**

V_B = _____ x _____ x _____ = _____ ft³

No. of bins = V₁ / V_B = _____ / _____ = _____ bins

Number of Primary Bins: _____

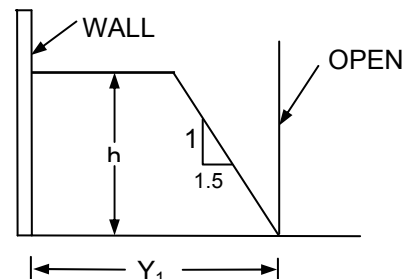
Note: A minimum of 2 primary bins required for standard bins.

B. Dimensions of Deep Bins:

h = height of bin (4 to 5 ft.) = _____ ft.

Y₁ = depth of bin (15 to 20 ft.) = _____ ft.

Y₂ = width (front) of bin (10 ft.) = _____ ft.



V_B = individual bin volume = $[(h \times Y_1) - (1.5 \times h^2 / 2)] \times Y_2$

V_B = $[(\text{_____} \times \text{_____}) - (1.5 \times \text{_____}^2 / 2)] \times \text{_____} = \text{_____} \text{ ft}^3$

No. of bins = $V_1 / V_B = \text{_____} / \text{_____} = \text{_____}$ bins

Number of Primary Bins: _____

NOTE: A minimum of 2 primary bins are required for deep bins.

SECONDARY BINS:

A. Volume shall equal or exceed $V_1 = \text{_____}$

B. Size of Secondary Bins: _____ x _____ x _____

C. Number of Secondary Bins: _____

NOTE: For every primary deep bin, there shall be a secondary bin of equal size.

LITTER STORAGE:

A. Volume shall equal or exceed $V_1 = \text{_____}$

B. Size of litter storage: _____ x _____ x _____

*NOTE: Breeder storage volume shall be **doubled**.*

NOTE: Litter storage is not required if the producer has a litter dry stack structure.

Designed by: _____	Date: _____
Checked by: _____	Date: _____
Approved by: _____	Date: _____